

APPARATUS AND METHOD FOR DYNAMIC CONTROL OF DOWNLINK
BEAM WIDTH OF AN ADAPTIVE ANTENNA ARRAY
IN A WIRELESS NETWORK

ABSTRACT OF THE DISCLOSURE

A wireless network base station for optimizing the beam width of a downlink traffic beam in real time is provided. The base station includes a transceiver for receiving a pilot strength signal and a power control signal from a mobile station. The base station further includes beam forming circuitry operable to form a downlink traffic beam spatially directed to serve the mobile station having a beam width set as a function of the received pilot strength signal and power control signal.